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The Fellowship Degree.

It is more than remarkable how few candidates have offered themselves for this degree since the examination was altered. There is no doubt that under the old methods the degree was conferred on men who did not possess very high scientific attainments. On more than one occasion the questions set were published, and we know pretty well the quality of question candidates had to face. The questions are now not more difficult than they were, but perhaps the examiners require a higher standard of proficiency. The standard is certainly not too high, for the new rules only require 30 per cent. to be obtained in any one subject and an aggregate of 60 per cent.

Possibly some of our members do not quite remember what the conditions for the Fellowship now are. They may be found at page 78 of the Register for 1894 which can be obtained from the Secretary of the R.C.V.S. By way of assisting intending candidates we may briefly note the requirements. First: An essay or thesis on any professional subject has to be written and sent in to the Secretary. The subject is chosen by the candidate, and may consist of a series of cases of any disease with comments on them. It may be devoted to physiological or hygienic matters. Nearly every man has some special subject on which he feels extra proficient or in which he is specially interested. This is the subject he should select for his thesis.

Should the essay meet with approval the candidate has then to pass a written examination showing that he possesses sufficient general knowledge to be deserving of the degree. The subjects of the written examination are (a) Medicine and Surgery (b) Hygiene and Sanitation (c) Pathology and Elementary Bacteriology—including the recognition with and without the microscope of specimens. This last subject will probably prevent most veterinarians of more than ten years standing from competing. This is perhaps hard on a few who would have liked to hold the degree, but it is a necessary addition if the Fellowship has to indicate a higher standard than the Membership. In future we shall expect that only the younger members will obtain the honour, but we sincerely hope they will not be backward in attempting it.

It must not be forgotten that examiners can only be chosen from the list of fellows. Even now it is no easy matter to select qualified examiners from their list, and as time goes on, if young men do not qualify, we shall have great difficulty in forming a satisfactory Board of Examiners. There is a tolerably general feeling that veterinarians should fill the places of examiners whenever it is possible to find them with the essential knowledge and characteristics. The degree of Fellow is one essential and the younger graduates should bear this in mind.

It is a question whether the degree might not be made less expensive.

"Vet."

Another contributor takes up this week the ball thrown by Mr. Fraser, and gives it further impetus. The action taken by Mr. Fraser is well worthy of imitation and, we are inclined to think, is as likely to lead to satisfactory results, if freely adopted, as the suggestion of X that the matter should be taken in hand by the Council. There is, doubtless, the *vis inertiæ* of established custom to fight against and the struggle will be long and tedious, and in some directions doubtful, to say the least. But the instances quoted by Mr. Fraser are so unmistakably objectionable to many of our members who take pride in their professional work that we hope his example will be largely followed.

The word Veterinary seems to be somewhat of a stumbling block, and it would be well if we could come to a decision on the matter amongst ourselves, for at present one hears the word pronounced in a variety of ways. Vet'ny, Vet'n'ry, and Ve*turr*inary are perhaps the widest deviations. We fancy that our practical neighbours the Germans would tackle a not unimportant item of this sort at the fountain head—the teaching schools.

The Importance of Anatomy.

There is, it is said, a consolation to be found in the misfortunes of one's friends; certainly we may sometimes take a lesson from their errors, and the extract we print on another page seems to indicate that the evil of insufficient teaching in anatomy is making itself felt in the practice of human medicine; for even allowing some bias on the part of the writer—which we have no right to anticipate—there must still remain substantial cause for so strong a remonstrance. We have always held that our profession is far less liable to the ultra-refinement in teaching that this writer so forcibly laments, but we have more strongly insisted on the absolute necessity of sound anatomical teaching as the very corner stone of our professional training. This letter following so closely on the remarks from the "Address in Surgery" which we printed a few weeks back may be taken as a wholesome reminder.

CASES AND ARTICLES

CANNABIS INDICA,

Its Physiological Action and Therapeutical Value in Equine Practice, compared with Opium.

By E. Wallis Hoare, F.R.C.V.S., Cork.

The inefficacy of opium and its alkaloid morphine, as an anodyne, in cases characterized by severe abdominal pain in equine practice, has led to the introduction of a comparatively new agent for this purpose—Cannabis Indica, or Indian hemp. I believe I am correct in stating that Veterinary-Captain F. Smith, was the first to draw the attention of the profession to the value of this drug, and its superiority over the other anodynes in common use.

Veterinary text books give but little information on the actions or uses of cannabis indica. The doses recommended are totally inadequate to produce any beneficial effect in the horse, and this may account for some of the results with reference to the therapeutical value of the drug. I do not mean to make the broad assertion that the time-honoured opium is useless as an anodyne in the horse, for as I have seen many cases where it has given great relief, and has produced temporary effects as a hypnotic, but my experience is that in those conditions of violent abdominal pain, depending on different affections of the gastro-intestinal canal, the use of opium or morphine, in the majority of instances fails to give that relief for which we are anxiously watching. In the hope of inducing sleep, and giving at any rate temporary ease, the opium or morphia is continued in large doses, with the result that instead of producing hypnotic effects, the drug acts as a cerebro-spinal excitant, causing the animal to walk continuously round his box, in a semi-delirious condition, frequently neighing, and knocking his head against the corners of the stall. In such cases I have often administered morphine hypodermically in very large doses throughout the night in the hope that a reaction might occur, and that the stimulation would give way to depression, but in this I was disappointed, as the patient continued its weary march around the stall, until I administered a large dose of chloral hydrate which finally produced sleep.

It is my intention to briefly compare the actions of opium and cannabis indica, as regards their power of relieving abdominal pain.

Opium is believed to exert a distinctly sedative effect on the mucous membrane of the stomach and intestines, although it is stated that a primary brief stimulation occurs. The sensible impressions from the mucous membrane are diminished or arrested, the conductivity of the sensory nerve trunks is diminished, the perceptive and sensory centres in the central nervous system are depressed, the total result being that pain cannot be originated, that the flow of painful impressions is interrupted, and that it cannot be felt. These are the ideal actions of an anodyne, but as regards the effect of opium in the cerebrum of the horse, we must, in the majority of instances regard it as an excitant rather than a depressant. It is questionable in those cases characterized by violent abdominal pain, and if the animal be placed under the action of morphia or opium, whether pain is felt while the cerebro-spinal excitation is proceeding.

But even admitting that pain is relieved it is clear that this continuous excitation, does not improve the chances of a successful termination, for it tends to wear out the vital system at a period when perfect quietude is indicated.

In cannabis indica we possess a drug which both relieves pain in the manner indicated, and also acts as a direct hypnotic. Even in the most violent cases of pain it produces a condition of sleep in the horse unequalled by any other drug with which we are acquainted. It may be argued however that many such cases will have a fatal termination, in spite of all treatment. This is true with reference to those of a fatal nature from the commencement, such as volvulus, intussusception, etc., but even in these it is our duty to relieve as far as possible the excruciating agony which is present, and this I believe opium or morphia will fail to accomplish.

Another point worthy of notice is, that we cannot with any degree of accuracy in the first stages diagnose conditions which are of necessity fatal, hence hope should never be lost, even when grave symptoms manifest themselves. I have attended many cases in which I was firmly convinced from the nature of the symptoms would end fatally, but have been agreeably surprised to find them recover after the administration of large doses of cannabis indica.

Cannabis indica, generally takes from twenty minutes to half an hour to produce its effects, that is when the extract is administered in the form of bolus. This length of time is of course a disadvantage in cases where speedy relief is required, and I usually administer a hypodermic injection of morphia to give temporary ease until the ball has had time to act. I venture to hope that in the near future an efficient active principle will be discovered in cannabis indica, which will be of immense advantage as a hypodermic injection.

The hypnotic effect of the drug is well-marked after a full dose, in the time stated. The animal assumes a sleepy appearance, the eyelids droop, he stands quietly in a corner, and may occasionally nod his head. There is no period of excitement, such as is said to occur in man. These hypnotic effects may continue for a long period, and in cases where large doses of the drug have been administered, a snoring sound occurs in respiration. The effects sometimes vary, probably depending on either the composition of the drug itself being changeable, or on the susceptibilities of different individuals to it. For instance some horses are deeply narcotized by a dose of one ounce of the extract, while in others, anything less than this amount will not produce desired effects.

As an example of increased susceptibility to the action of cannabis indica, I give the following notes from my case-book. A four-year-old gelding, brought to the infirmary for treatment, suffering from acute abdominal pain, the ordinary colic draught was administered, but the pain became more

violent, the animal throwing himself about in a helpless manner and rolling on his back. One ounce of extract of cannabis indica was administered and in twenty minutes the animal became dull and sleepy, standing with the eyelids half closed, occasionally shaking the head in a listless manner. He continued in this condition all night, the attendant stating that the breathing was accompanied by a snoring sound.

Next morning the patient was in a state of profound narcosis, the lips were retracted, the tongue protruded, head hanging down, and a large amount of frothy material issuing from the mouth, there were constant shivering fits, the pulse small and weak, respirations accelerated. The abdomen was tympanitic, and there was evident interference with motor power in the hind extremities; the penis was protruded and pendulous, and the general appearance of the patient gave little hope of recovery. A drench composed of spts. ammon. aromat. ʒiv, spts. aeth. nit. ʒiv. and whisky Oss. was administered with difficulty, as the power of swallowing seemed interfered with. I also punctured the colon, and a large amount of gas escaped. The animal soon afterwards commenced to feed slowly at a sloppy bran mash.

At 1 p.m., as the shivering fits still continued, I injected hypodermically ʒiij of ether, and administered an ounce of whisky. As there was no action of the bowels, I gave an enema of 4 pints of ol. lini by means of the long rectum tube, and allowed no food with the exception of very thin oatmeal gruel and sloppy bran mashes.

The following day the bowels acted slightly, the fæces being very light in colour and containing undigested oats. The animal still walked very stiff in the hind quarters, and there was a good deal of tenderness on pressure of the abdominal walls; appetite fairly good. Small doses of mag. sulph were administered, and moderate walking exercise.

The next day the patient was much improved. The bowels had acted freely, and all stiffness had disappeared. He was discharged, and in a few days went to work.

In this case, whether all the symptoms can be ascribed to the action of the drug, or to the abdominal affection, is a point on which I am not clear. At any rate the primary symptoms looked serious, as the animal crouched himself together, lying down carefully after several attempts to do so, temperature 101·5, pulse quick and full, pain continuous, tenderness on pressure of abdomen; strained violently on rectal examination, and an enema was at once expelled; the violent abdominal pain coming on shortly afterwards.

After the treatment of this case, I commenced to give the cannabis indica in half ounce doses of the extract, and found that in ordinary cases this dose was sufficient. In one instance, I gave three half-ounce doses in one night, the case being one of slow continuous abdominal pain, which I was called to attend at 10 p.m. The animal, a hunter, the property of an officer, had been in pain for three hours previous to my attendance, and the drug was administered at intervals of two hours, before relief was obtained. The next day there was a slight degree of narcosis, but no interference with appetite and the patient made a good recovery.

The advantages of cannabis indica over opium and morphia as anodynes in equine practice may be summed up as follows:—

(1). Cannabis indica, is a reliable hypnotic, in addition to its anodyne effects on the intestine; unlike opium it produces no exciting action on the central nervous system.

(2). It does not interfere with appetite or cause constipation like opium.

(3). It will give ease in those cases of violent and uncontrollable adominal pain, when other agents fail.

"DOG-TOOTH" PEA POISONING.

By Joseph Abson, F.R.C.V.S., Sheffield.

Poisoning by the "Dog-tooth" or Riga pea would appear to be far more common than is at present supposed. In addition to the outbreak cited by Mr. J. P. Slidders, assistant to Mr. Macgregor, of Bedlington, I have information of other outbreaks; one in Cumberland of which no particulars are at present to hand, two outbreaks in the practice of Mr. Robert Cockburn, of Eastwood, the first being at a colliery in which 20 or 30 animals were affected, the second at a farm in which four horses suffered from the poison. To these I have to add an outbreak in the practice of Mr. William Hunter, of Newcastle-on-Tyne, in which some 10 or 12 animals were affected, and four died. The particulars given by Mr. J. P. Slidders in *The Veterinary Record* of August 11th coincide in most particulars with an outbreak which has come under my own notice in the practice of my friends and neighbours Messrs. F. W. and H. Thompson. The horses the subjects of this outbreak numbered 12, and all were more or less seriously affected. The peas, or more properly speaking vetches, were first used about the end of January, and about the middle or latter part of April the animals began to manifest signs of poisoning which gradually intensified until the end of May, at which time Messrs. Thompson and myself were called in.

The horses as observed in the stable presented no abnormal appearances. They fed well, were in fairly good condition and appeared bright. Temperature in all cases was normal; pulse somewhat quickened and of a thready character. When moved out of doors they presented the following symptoms: thick wind, weakness of the hind quarters with staggering gait, knuckling over on the hind fetlock joints, and general signs of intoxication. When backed the hind parts would sometimes come to the ground. The worst cases when walked about were seized with roaring, and in one case this was so marked that before the animal had proceeded 50 yards from the stable door he was seized with a violent attack of laryngeal paralysis and dyspnœa and it became imperative to at once perform tracheotomy in order to save his life. During this short attack of dyspnœa

the expression of the animal was remarkable—the face was haggard, eyes staring, heart palpitating loudly; frothing at the mouth, from which the tongue protruded; and the buccal membrane began to assume a bluish tint. The head was thrown violently about and the animal literally fought for breath. The noise produced was of a whistling-roaring character and could be heard for a considerable distance. Within five minutes after tracheotomy had been performed the breathing had assumed its normal condition, the anxious expression of countenance disappeared, and when led into the stable he at once commenced to feed as though nothing had happened.

The food was now most carefully examined, nothing suspicious was noticeable about it excepting that I had never before to my knowledge seen peas of such a singular shape. At this time I had heard nothing of poisoning by the dog-tooth pea, but the symptoms tallied so closely with those produced by *lathyrus sativus* that suspicion was at once directed to the peas in the feed. I wrote and forwarded samples to several gentlemen with a view to eliciting information; Mr. Hunting, in reply, informed me that he had heard of a similar outbreak in Cumberland. I may say that on our first visit to these cases the diet was immediately and entirely changed, but by this time the mischief was wrought—the poison had accumulated in the systems of the animals producing at intervals attacks of roaring and dyspnœa, so that from this time to the middle of July the disease proved most disastrous. Suffice it to say that tracheotomy was performed on seven of the horses, and three died of the disease practically without warning. Improvement now began to take place and several of the horses which showed the disease in a milder form have resumed work. It is, however, questionable whether they will ever regain their former condition and strength.

With regard to treatment, various remedies were tried with a view to mitigating the disease, but as the poison is as yet unknown the treatment was of course purely speculative. The great Bristol poisoning case had not at that time been made public. An old knacker after receiving from 8 to 10lb. of the peas daily for a month showed all the symptoms of the poison. We deduced from the clinical history of these cases:—

(*a*) That the symptoms arising from poisoning by the lathyrus sativus, and the dog-tooth or Riga pea are practically identical.

(*b*) That both are cumulative in their action.

(*c*) That the time necessary for the manifestation of the symptoms varies from four weeks to four months, depending upon the quantity consumed by the animal.

(*d*) That it exerts its specific effect on the nervous system generally, but producing more particularly paralysis or spasm of the laryngeal muscles.

(*e*) That months are necessary for its elimination from the system.

Post-mortem appearances. Lungs intensely congested, being consistent with death from suffocation. Larynx deeply congested in patches, as was also the trachea about its upper third; vocal cords thickened; frothy mucus filled the whole of the respiratory passages. Heart apparently healthy excepting an ecchymosed spot near apex. Abdominal viscera healthy. Brain and spinal cord healthy as far as naked eye appearances went.

The quantity of peas consumed by these horses was about 3½lb. per horse daily.

I have also to thank Profs. Macqueen and Bayne for their kind assistance in identifying the species of the pea.

CHOKING IN THE HORSE.

By F. Hobday, M.R.C.V.S., Royal Vet. College.

The following two cases were brought up for treatment at the Free Clinique of the College, and are illustrative of the importance of giving carrots to the horse in a properly prepared condition. It is not by any means uncommon to meet with instances of horses being choked through swallowing carrots which have been cut transversely, but it is more rare to meet with cases in which the carrot has been swallowed whole and recovery ensued.

Case A was a chestnut gelding, a cab horse. The owner stated that on the Monday the animal had been at work and came in about 4 p.m. It was very hungry, and greedily took a small carrot offered by the owner's son, the little boy also allowed it to drink some water at the same time from a bucket near. The horse immediately staggered and almost fell backwards, showed symptoms of choking, then became very dull and restless. A large quantity of frothy saliva collected in the mouth and whenever he attempted to drink the water returned through the nostrils. Was totally unable to eat, and continually gulping.

Tuesday 2 p.m. When brought to the Free Clinique the symptoms presented were: Greenish and very fœtid discharge from the nostrils, which had the odour of wet, decomposing, vegetable material. When attempting to drink the water all returned through the nostrils. Animal continually making a peculiar gulping movement. No external visible sign of the obstruction, but animal manifested great pain when manipulated in region of larynx.

The horse was cast and the back of the pharynx thoroughly examined but without result; an unsuccessful attempt was made to pass the probang; the obstruction could readily be felt, but would not yield to gentle pressure and it was thought best not to attempt to force it at present. Animal allowed to rise and placed on pillar reins.

10 p.m. Very fœtid and abundant discharge from mouth and nostrils; greenish colour. Again attempted to drink, but all returned through the nostrils. Would not attempt to eat. Still gulping frequently, coughed and sneezed several times. A draught of ol. lini was administered but not very successfully.

Wednesday. No appetite—no perceptible change—water still returned down nostrils. Very abundant fœtid and slimy discharge as on previous day.

12 noon. Cast and again attempted to pass the probang, this time with success, the obstruction

yielding almost at once. When the probang entered the œsophagus about a pint of very fœtid, greenish, watery fluid came into the mouth, as if it had collected in the upper part of the œsophagus on the top of the carrot.

10 p.m. Pulse 78, temperature 103. Drank about a gallon of water, had eaten about a handful of bran mash. Looked much better: no gulping: no return of water through the nostrils. Expressed pain when manipulated externally in the region of the Larynx. Gave

Ol. Lini ʒij.
Acid Carbol. ♏xxx.
m. ft. hst.

Thursday 9 a.m. Progressing favourably but very dull and no appetite. Gave draught as on previous day.

9 p.m. Draught as at 9 a.m. Had taken some gruel and a small quantity of bran mash.

Friday. Progressing favourably, was kept on soft diet for a few days and made a good recovery.

Case B was a cart horse, brought up to the Free Clinique, March 8th.

The owner stated that on March 6th the animal had been fed with whole carrots and had apparently swallowed a portion of one. He had felt a lump in the throat, which, on manipulation, he had forced further down the œsophagus towards the stomach.

March 8th. Continually holding head down; large quantity of saliva and mucus continually flowing from the nostrils, constantly pawing, very haggard expression of countenance. When attempting to drink water it returned through the nostrils.

The animal was cast and a probang passed. After some little manipulation the obstruction (which was close to the stomach) yielded, and was forced into the stomach.

The animal appeared relieved at once. After treatment consisted of the administration of two mixtures each consisting of

℞ ol. lini ʒviii.
acid carbol. ♏xx.
m. ft. hst.

at intervals of 12 hours. Soft diet was allowed for a few days, and the animal made a good recovery.

PHANTOM PREGNANCY?

By H. C. Harrison, M.R.C.V.S., Bowdon.

The peculiar case described in *The Veterinary Record* of June 9th and the request of the writer for particulars of a similar case encourages me to mention one which came under my observation. The symptoms and sequel were analogous in every detail to the case recorded.

On Sunday evening, June 10th, I was requested to examine a valuable fox terrier bitch whose period of gestation elapsed on June 8th. For three weeks previous to my seeing her, the owner informed me she presented every appearance of being in an advanced state of pregnancy, the abdomen being enlarged, the mammary glands developed, and all the usual symptoms one observes in a pregnant animal.

On June 9th a dark green discharge was noticed issuing fram the vagina. There was no straining and no progeny appeared. The patient seemed a little depressed and the appetite was much impaired. Enquiries proved conclusively that nothing but the discharge mentioned had been expelled from the uterus.

The treatment adopted was repeated cleansing of the discharge from the vagina, and a pill containing pulv. rhei. grs. 5 administered three times each day. The food consisted of tripe, an occasional piece of raw meat, and a little beef tea.

On June 11th my patient appeared a little more depressed and exhausted but no change was required in the treatment.

I begged of my client to inform me if any change occurred, and on June 21st I received the following note:—

> Dear Sir,—The bitch, as far as I know, never had any puppies. She had a lot of milk which has now gone away, and she has resumed her ordinary shape. She is out of sorts and not so lively as formerly, and her eyes have an anxious pained look. She eats fairly well and is all right when she is out and excited, but if there is nothing stirring she is dull and listless, and droops her tail, which she never did before. A curious thing is that dogs take a great interest in her and won't leave her alone, but she will not have anything to do with them. The stud fee of the dog to which the bitch was sent was £3 3s. and I have a certificate in my possession certifying she was warded by the dog.
>
> Yours truly, T. E. B.

On receiving this note the treatment was changed, and tabloids containing ergotin grs. iv. were given twice each day; a good recovery followed.

Parvin on the Diseases of Women says "Pseudocyesis or false pregnancy generally occurs in women who have married late in life and are anxious for offspring. In some of these subjects abdominal enlargement may be observed, menstruation may be absent, or scanty and irregular, and finally the woman is usually positive that she feels fœtal movements. The climax of the illusion of spurious pregnancy may be spurious labour. The etiology of these cases is obscure. The women are honest in their belief, and they do not desire to deceive others but they are themselves deceived. Nor can this self-deception and the phenomena of false pregnancy and labor be accounted for by the action of the imagination, for similar phenomena have been observed in some of the inferior animals."

Harvey on Conception says "Overfed bitches which admit the dog without fecundation following are nevertheless observed to be sluggish about the time they should have whelped, and to bark as they do when their time is at hand, also to steal away the whelps from another bitch, to tend and lick them, and also to fight fiercely for them. Others have milk, or colostrum as it is called, in their teats, and are moreover subject to the diseases of those which have actually whelped."

Barnes on the Diseases of Women says "This disease is sufficiently marked to merit special attention. Although arising chiefly at the climacteric period there is hardly any limit to the age at which these symptoms and subjective belief in pregnancy may occur."

Other medical authorities find this disease appearing chiefly at the climacteric period and a variety of causes are mentioned, dipsomania, marriage late in life, and anxiety for offspring, and an analysis of the mental condition will commonly reveal the evidence of deviation from the healthy standard,

Pseudo-cyesis, false or phantom pregnancy in woman differs materially from the cases which have been recorded as occuring in the canine species, and I am inclined to the opinion that the diseases are not identical. The differentiating points of the disease in the human species are as follows :—1st. The mental character of the disease. 2nd. The most common accompaniments, dipsomania, marriage late in life, and anxiety for offspring. 3rd. Sexual intercourse unnecessary. 4th. Absence of uterine discharge. No medical authorities mention the fact of any discharge from the uterus, and this is borne out by medical friends whom I have consulted.

The mental capacity of my patient, from observation, appears to be good, and I can vouch for her not being a subject of dipsomania.

PARTURITION IN THE COW.

By A. Munro, M.R.C.V.S.

Mr. President and Gentlemen,—The subject that I have chosen to read before you to-night is not new, but one that a great deal has been said and written about. My excuse for bringing this before you is that of late we have had very scientific papers from some of our most learned professors on subjects which we in active practice have not time at our disposal to investigate, and when one is brought before us we have to admit that we are more in the position of learners than critics. Therefore when I was asked to read a paper before this Association, I made up my mind to give a paper on a subject that one and all of us have had more or less experience with, and will be able to discuss. It is impossible for one man to have all the knowledge ; a good discussion raises us up from our lethargy and sharpens our suggestive ideas.

When the veterinary surgeon is called to a case of parturition, the messenger comes in a breathless and excited state, saying, "You have to come to Mr. ——— as he has got a cow that cannot calve." On making a few inquiries regarding the case, you find that they have had Mr. Cleverbody and he is considered a good man with a cow, so that when he is beaten—after punishing the poor animal perhaps for five or six hours—you must throw everything down, get your instruments together, and hurry off, often arriving just in time to see the poor animal die, or at best to find the cow in a state of great exhaustion. On making an examination, you find she is much hurt internally, and you begin to take away the calf, perhaps getting it away in a very short time ; you then after attending to her comforts, leave word that you will call next day.

On your rounds next day you meet the neighbouring farmer, and he tells you that he is very sorry to hear that Mr.———'s cow is dead, and gives you a quiet hint that he thinks you must have hurt the cow internally with the steel instruments you used. The idea never occurs to him that Mr. Cleverbody working for five or six hours inside the cow did any harm. If the veterinary surgeon has been established for some time, and has the reputation of being an expert, he gets over this comparatively easily, but should he be a young practitioner, it very often sticks to him for years, although he was in no way to blame.

But to return to practice. When I am called to a case of parturition in the cow, I first make a careful examination to ascertain the position of the calf. Very often upon inserting your hand you feel a huddled mass, and it takes a little time to acertain whether it is the front or the hind end of the calf. When once you get hold of a leg you raise this up into the passage securing it with a rope, giving it to an assistant to hold ; then you search for another leg and repeat the process. You must then make sure that you have got two forelegs or two hind ones, by getting hold of the foot and passing your hand up the leg to the knee joint. If they are both forelegs, I then search for the head and raise it up into the passage, then pass a rope with a noose round the neck ; this can be easily done when you have an old cow, and a lot of room ; but in the case of a heifer with her first calf when your arm is in the passage, there seems to be no room for anything else. In a case of this kind I use a pair of forceps made for catching the legs, I pass them inside to my hand, place them round the leg and fasten with a screw ; I can then pull by them until I get the foot outside. When I have got the nose into the passage I pass a blunt hook into the orbit, and whenever the animal strains I have an assistant to pull at each leg and one pulling at the head by the hook ; never allowing more than three men to pull at a calf. Sometimes it looks as if they would never get it away, but just pulling when she strains allows the bones and ligaments of the pelvis to dilate. I often make the men stop pulling for a few minutes when I have a very hard case, and it is surprising how, when you have been pulling your best and seemed to make no progress, after resting a few minutes the calf will come away easily. I am speaking now of a heifer. In an aged cow it is not often that you have this amount of difficulty in bringing the calf through the passage.

If you find that you have the hind legs presented—which you may tell by passing the hand up to the hocks—you secure in the same fashion as the forelegs and pull. One thing I should draw your attention to in a breech presentation is to pass your had into the passage and take hold of the tail of the calf ; for I have met with cases where the tail has been turned upwards over the back, and I find that the brim of the pelvis of the mother catches underneath the root of the tail of the calf, and resists any force you like to apply. When you meet with this you have to push the calf back so as to pass your hand and get the tail down in line with the legs.

A short time ago I was called to a case of this kind, the owner had ropes on the hind legs and had got the calf so far, then it became a complete fixture, although they had six men pulling at the poor animal dragging her over the shippon. I found this was the sole obstruction, I had just to push back the calf and bring the tail towards me, we had the cow delivered immediately with three men. One thing should always be remembered that is to have the patient in a proper position, for I have seen veterinary surgeons fail in delivering cows for lack of this precaution. Before attempting to deliver, get some battens of straw tied tightly and place underneath the cow's belly, that is, if she is standing up. Very often when you begin to work at the calf the cow lies down.. If you get the straw underneath her, and see her in the act of lying down, have two men ready to push her forward by the haunches, otherwise she may come too far back and when she comes to the floor you have her sitting on her haunches—the very opposite position to what you

Read before the Lancashire Veterinary Medical Association, September 6th, 1894.

want her in. But with the hind quarters raised at least two feet and the head, neck, and shoulders on the floor, the stomach and bowels are thrown forward, giving a great deal more room, and often making what would be a very difficult case comparatively easy. If you have a calf twisted and the cow lying flat or, as they are very often in shippons, with their hind quarters lower than the rest of the body, you find that the stomach and bowels are lying closely round the womb, and that you have no room. Should you perform embryotomy and remove a leg, the stomach and bowels just come a little closer and take up the space you have made. In the position I have indicated this difficulty is avoided.

A position that I find gives me most trouble is, where you have the forelegs, and find the neck of the calf is bent back upon itself from the shoulder, and just as far as you can reach you find the tips of the ears. The head is fast between the sides of the mother and its own body, and you have great difficulty in removing it; the eye and the nose of the calf are out of your reach, so it is impossible to place a hook or other instrument in the orbit to bring it toward you. In a case of this kind I remove one of the forelegs.

One thing here about the embryotomy knife. Those we get from instrument makers have the rings that we put on our fingers made of iron or steel, breadth about three-fourths of an inch, thickness about one sixteenth of an inch. After using such a knife for a little while you find that this thin edge of the ring cuts the back of your fingers; and should you have a case of the same kind next day, your fingers will be so sore that you cannot use the knife. When I get a new knife I take off this ring and get a ring made of a quarter inch round iron, so that you can work with it, without hurting your fingers in any way.

Coming back to my subject—Taking the knife in my hand I pass it up the leg of the calf to the brisket, or as far up the shoulder of the calf as I can reach; the knife being hooked at the point. I force the point of the knife through the skin and pull toward me, thus making one long incision from the shoulder down to the foot, then I separate the skin from the leg with my fingers. About the knee joint you find in the fascia small tendinous cords attached to the skin and the fascia of the joint; this is very hard to break so I cut them with the knife. Continuing with my fingers until the skin is removed as far as I can reach. Then I take the knife again and cut the muscles between the shoulder and ribs of the calf. When I have satisfied myself that I have got the leg well cleared of the skin and other attachments, I cut the skin away from the foot of the calf, then laying hold of the leg giving it a twist, at the same time having two assistants pulling, and away it comes. The leg being removed that quarter drops towards the udder and in doing so the head has come much nearer, enabling you to reach the eye. The completion of the operation then presents little difficulty.

I find that a case where tail and haunches are presented, without the legs, gives a great deal of trouble to the amateur. They all seem to think that you have just to get hold of the foot and bring it upwards into the passage Now in a case of this kind, if you get hold of the foot and lift it up, the point of the hock comes in contact with the vertebra before the foot is high enough to enter the passage; this is the fix I find a good many in.

In a case of this kind push the calf back, and raise the hind end of the calf until it is almost in the position of standing on its head; then get hold of the foot and lift sideways and upwards, in this manner the leg is in ordinary cases easily got into the passage. The other leg has to be got up in the same manner, and then delivery is soon accomplished.

In a case where the fore and hind legs are all in the passage at the same time, the first thing to do is, to secure the fore legs, push back the hind legs and get the head in position. It often happens that the head and fore legs get outside the passage but when you expect the calf to come away it becomes fast, and all the force you apply does not move it. On examining you find that the hind legs have got fixed up into the passage, and are coming along underneath the belly, and when the hocks of the calf reach the brim of the pelvis of the mother, they act like a wedge causing the stifles to turn outwards. This spreading of the hind quarters of the calf makes it so large, that it is impossible to pass through the pelvis of the mother. When this stage is reached, you have got the head and forelegs outside. To attempt to return the calf is useless—it is next to impossible to do so. I take a knife and cut round the body dividing the calf into two portions, then remove the heart, lungs, and abdominal contents. Having done this push the hind portion back, getting up the legs, and delivering the remaining portion of the calf hind end first. I have had several of these cases, and have found this method very satisfactory. In a serious case I always try to save the mother, if I have sometimes to sacrifice the calf; but in many of these cases you will find that the calf is dead before you have interfered.

Torsion of the neck of the uterus is a condition we meet with occasionally. I have met with eleven cases in the last five years. In these cases the cow presents all the appearance of being prepared to calve, she will be straining, but never seems to get nearer delivery. On examining the cow the vulva and vagina are dilated, but when you reach the neck of the uterus it is suddenly constricted, and you find the twist from right to left, how this should be I am not in a position to say; but every case I met with has been so. In cases of this kind my method is to take two pieces of rope about twelve feet long, tying them together in the centre, making a cross of them. I then place the knot on the cow's back, having two loose ends hanging down on either side. I lift one foreleg of the cow and take one end of the rope, tying the foot as high towards its back as possible; then get to the other side, holding the rope attached to the foot pushing the cow over on to her side, getting an assistant to hold the head down, I then tie the other fore foot in the same way, and then the hind ones; this makes the cow into a shape that you can easily roll along the floor. Now, some veterinary surgeons that I have talked to about these cases tell me that they secure the cow in the same manner, but they roll the cow in the opposite direction to the twist. This way I have found has not acted at all to my satisfaction. I turn the cow from right to left, and keep rolling until the twist is undone. Sometimes I have had to turn the cow twenty times before attaining my point, and in other cases the twist has righted itself in two or three turns. During the rolling of the cow I keep my hand in the vagina, so as soon as the twist is undone I stop the assistants rolling the cow, take off the ropes, and allow her to get on her feet. In some cases I have had the waters burst and the cow deliver herself without any assistance. In other cases I have had to assist in the delivery. When one of these cases presents itself I never feel excited about it, for I am quite confident that as soon as I find out what condition the cow is in that I will be successful in delivering, and I do not think anyone will be disappointed if he will follow out this plan.

Another form of parturition is what I would call premature labour, that is when a cow has been straining for some time and preparing to calve, the vulva and vagina dilated, but on passing your hand in the vagina you find a large globular substance, and in the centre of this round swelling you find the os uteri contracted so much that you cannot push your finger through. By

working your finger round and pressing you will gradually get the os to dilate, and by using belladonna and continually stretching the os until you can get your hand inside the womb to bring away the calf. This method cannot be too much condemned, for in four or five days afterwards your patient will die from peritonitis. Now I find in these cases nothing acts so well in my hands as leaving them alone. What I usually do in these cases is to give the cow half-an-ounce of chloral hydrate, and if she is not at ease and free from pain in four or five hours I repeat the dose, and every case that I have treated in this manner has given full satisfaction. Some cows have gone two days, and in one case the cow went five days, calved without any assistance and did well afterwards.

In conclusion, one word as to after treatment of our patients. Whenever we have a difficult case of parturition, always see that the cow is well fomented for five or six hours immediately after she is delivered, with a large sponge or piece of blanket, for if this is neglected you will find the vulva much swollen the next day when you call to see her, and she will be straining heavily. Along with the fomenting, give some gruel and treacle as a laxative, and give also some cordial and stimulating medicines.

EXTRACTS AND NOTES.

PARASITISM, SYMBIOSIS, AND COMMENSALISM.

When one organism lives in or upon another, and feeds at that other's expense, as an unbidden guest without benefiting its host in any way, we call the condition Parasitism. But there are many cases where the two beings form a physiological partnership, and these are generally included under the name Symbiosis. The members of the firm may be both animals, or both plants, or one may be an animal and the other a plant. In some the association is so close that it is exceedingly difficult to determine that they are indeed two beings and not one. For many years, for example, in some radiolarians little yellow bodies had been noticed. They were seen to possess a well-defined nucleus and a cell wall, and they were looked upon at one time as spores, at another as secretory cells; but later it was found that, though the radiolarian might die, yet the yellow bodies would survive and multiply. They were, in fact, minute algæ, and, though they lived in the radiolarian, the host and the guests both prospered; for the host gave off carbonic acid and nitrogenous products, which formed the best food for his guests, the algæ; and these in their turn evolved oxygen, and so supplied one of the chief wants of the radiolarian. Each profited by the association. In other cases the union is much less intimate, and these have been differentiated by name under the term Commensalism. There is a hermit crab, who carries about with him attached to his shell or even to his claw, a sea-anemone. When the crab feeds the anemone shares the feast, and, moveover, enjoys the benefits of free locomotion, though little able to move itself. In its turn it serves to protect the crab by hiding him, and may also aid in killing or numbing his prey; and when the time comes that the crab must seek a new shell, he carefully assists his partner to change his home, also showing how greatly he appreciates the union. Two other examples of this sort of partnership have been added to the museum of the Royal College of Surgeons of England during the past year. In one, two specimen of ants from Guatemala (camponotus planatus and pseudomyrma belti), who have lost the habit of making nests and inhabit the naturally hollow spines (stipules) of acacia hindsii, entering by an opening which they make near the tip; the leaves of the plant furnish food for the ants, nectar glands on the main leaf stalk supplying carbo-hydrates, little yellow "food bodies" on the tip of some of the pinnæ of the leaf furnishing hydro-carbon as oil and proteid in the form of aleurone grains. In return for this hospitality the ants defend the plant from the attacks of other animals.

The allied phenomena of Parasitism, Symbiosis, and Commensalism illustrate in a marked manner the inter-dependence of organisms, and bring home to us in a picturesque manner the fact that few are able to live only for and by themselves, but that it is the common lot by serving others to serve ourselves.—*The Lancet.*

THE REFRACTIVE CHARACTER OF THE EYES OF HORSES.*

By Vet.-Capt. F. Smith, F.R.C.V.S., F.I.C.

The eyes of the horse are of great physiological interest for there are certain features in connection with them not found in other animals.

While equine vision is principally monocular, it is quite undoubted that the horse can see objects situated on the right and left of his body at one and the same time; it is also equally certain that by directing both eyes forward, and producing a powerful internal squint, vision may be rendered binocular for objects situated directly to the front.

The corresponding points in the retina of the human eye, do not hold good in the case of animals which have their eyes situated laterally in the head at some distance apart.

The pupil of the horse is a horizontal slit, which in full sunlight becomes so contracted that, with the presence of the corpora nigra, it is difficult to understand how sufficient light finds its way to the retina. A monocular retinal image in full sunlight must be a broken or imperfect one, for, filling up the centre of the horizontal pupil, are some large, black, soot-like bodies, the corpora nigra just referred to. These are attached principally to the superior pupillary margin of the iris, and completely block out the centre of the pupil when the latter is closely contracted. The horse is, I believe, the only animal possessing corpora nigra, and the function of these bodies is quite obscure.

It is essential that the horizontal pupil should always be kept horizontally placed, no matter what position the head may occupy; every upward and downward movement of the head necessitates a rotation of the eyeballs to ensure the pupils remaining horizontal, and this rotation is produced by the oblique muscles of the eye. As

* From the proceedings of the Royal Society, Vol. 55. Communicated by Professor McKendrick, F.R.S. Received March 7, 1894.

the horse can move its head vertically through an angle of about 90 degrees, (the pupil all this time remaining horizontal) it can be seen how important is the function of these oblique muscles.

Though in direct sunlight the pupil closely contracts, yet in ordinary artificial light it dilates. This phenomenon can be turned to practical advantage in an ophthalmoscopic examination. Further, I have found that if daylight be thrown into the eye by means of a mirror the iris does not, as a rule, contract ; this may be proved by placing a horse in a stable and excluding daylight from all but one source, and utilising that source to illuminate the eye by means of a mirror ; a complete examination of the fundus can now be made, owing to the dilatation or, at any rate, non-contraction of the pupil.

For the last two years I have used no artificial light in my ophthalmoscopic work, and in the enquiry I am about to detail the whole was carried out in broad daylight. I have met with cases where the pupil has contracted on throwing a beam of daylight into the eye ; such do not amount to more than 6 per cent. or 8 per cent. of the eyes examined.

Horses no doubt possess the power of accommodation, but I have never been able to satisfy myself that the instillation of atropine paralyses this power as it does in man ; in fact, I think I can go so far as to say that in many cases no action is produced by this drug on the ciliary muscle, though the pupil be widely dilated. In a small proportion of cases I believe I have been able to observe some defect in accommodation under atropine.

My attention to this point was especially directed by a remark made by Messrs. Lang and Barrett* to the effect that a cat, the pupils of which they had thoroughly dilated with atropine, had no difficulty in pursuing and catching a mouse. Though it is difficult to apply such a satisfactory test to the horse, yet I have adopted measures which should, undoubtedly, have demonstrated any paralysis of accommodation had such existed.

The physiological peculiarities of the horse's eye, which I have ventured briefly to draw attention to, induced me to examine the nature of the refraction, especially as a knowledge of it was calculated to be of practical importance and utility.

Disorders of vision are very common amongst horses ; the most careful examination of such eyes often fails to reveal any pathological condition, but I think it will be possible to show that the nature of their refraction is calculated to throw light on an obscure condition.

We must accept it as practically correct that disorders of vision in horses commonly exhibit themselves by "shying," a vice which may be attended by considerable danger. I shall hope to show that there is now a reasonable prospect of determining the cause of "shying" in the absence of pathological changes in the eye ; further, that in that important branch of the veterinary art—the examination of horses for soundness—it should be possible to detect the kind of eye against which an intending purchaser should obtain a special warranty ; and, lastly, as it is possible not only to determine the nature of the refraction, but also the amount of error which exists, we shall be able—when the needful public prejudice is overcome—to prescribe glasses for horses with every reasonable prospect of improving their vision.

This is not the first time the refraction of the horse's eye has been examined. Professor Berlin, of Stuttgart, published two papers on the subject,† of these I have only been able to consult the second one. About the same time J. Hirschberg published his observations on the refraction of horses' eyes.*

In this country Messrs. Lang and Barrett, to whose paper I have already alluded, published an account of the refraction of the eyes of animals, including the horse. It is from their paper that I obtained two of the above references.

These observers obtained results which I have not been able to verify, and I think the reason of this admits of easy explanation :—In the case of Berlin the refraction was obtained by a direct examination of the fundus of the eye with the ophthalmoscope, a procedure the result of which appears to depend very largely on the refraction of the examiner, and his capacity for relaxing his accommodation.

In Lang and Barrett's excellent work the refraction was measured by means of "retinoscopy." They devoted their attention to the eyes of mammalia generally, but the number of horses tested by them was too small to admit of any general deductions being drawn.

According to Berlin, the majority of horses are slightly hypermetropic ; he only met with eight cases of myopia in as many years. The amount of hypermetropia, according to this observer, is small, as a rule, lying between 1 D and 2 D. The largest amount found by him was 2·25 D.

Of myopia, Berlin found in one case as much as 3 D, and in another, 2·75 D.

Hirschberg, adopting the same method of enquiry as Berlin, viz., direct examination of the fundus with the ophthalmoscope, found a considerable amount of astigmatism in the eyes of horses.

Lang and Barrett, in the six eyes they examined, found one was emmetropic, three hypermetropic and astigmatic, and two had slight mixed astigmatism. The astigmatism only once equalled 1 D, and the horizontal was always the least curved meridian.

In the enquiry I am recording, the number of horses examined was 54 ; these 54 horses, from one cause or another, furnished me with 100 eyes.

Of the 54 animals, 31 were mares and 23 were gelding ; their ages varied from 4 to 16 years ; the largest number of horses of one age (5 years) was 13, 7 horses were 6 years old ; 7 horses 7 years, 6 horses 8 years ; the remaining numbers for each age varied from 1 to 4.

Before recording the results of this enquiry, I think it necessary to describe the method by which retinoscopy is carried out on the horse.

It has been shown by Messrs. Morton and Barrett† that the results of retinoscopy are liable to considerable error unless practised at the right portion of the fundus.

The observations made by these and other observers‡ are of the greatest value, for they have drawn attention to the difference in the reflex obtained in the human subject at the yellow spot and at the optic disc, and have settled that retinoscopy is only reliable when practised at the visual axis of the eye.

In the horse I found very early in the enquiry, that confusing and conflicting results might be obtained with

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* "The Refractive Character of the Eyes of Mammalia," by W. Lang, F.R.C.S., and J. W. Barrett, M.B., 'Royal London Ophthalmic Hospital Reports,' vol. 11, Part II.

† "Refraction und Refractions-Anomalien von Thieraugen," 'Tagblatt der 52 Versammlung Deutscher Naturforscher und Aertze in Baden-Baden,' p. 317. (Extract in 'Nagel's Jahres-Bericht.')

"Ueber den Physikalisch-optischen Bau des Pferdeauges," 'Zeitschrift fur vergleichende Augenheilkunde,' 1882, Heft. I.

* "Zur vergleichenden Ophthalmoscopie," Vortrag gehalten in der Berliner Physiologischen Gesellschaft am 10 Feb., 1882 ; 'Archiv f. Anat. und Phys.,' 1882 ; 'Phys. Abth.,' Heft 1 and 2, p. 81

† "A Clinical Investigation of the Methods of Practising Retinoscopy," 'British Medical Journal,' 16th January, 1886. See also 'Refraction of the Eye,' A. S. Morton, M.B., F.R.C.S.

‡ 'The Shadow Test in the Diagnosis and Estimation of Ametropia.' W. B. Beaumont.

the same eye when retinoscopy was practised at different parts of the fundus, for the reflex given at the optical axis was not the same as that obtained when the fundus was looked at obliquely. We have no knowledge whether the optical axis and visual axis of the horse are identical —for the purpose of this enquiry it has been assumed that they are.

The horse has no yellow spot, so that a valuable guide is lost in determining the position on the fundus at which to judge the reflex; on the other hand, the error of taking the reflex at the disc is not likely to occur, owing to the difficulty of seeing the disc with the head in the ordinary position.

The area of the most acute vision in the horse is probably the "tapetum," and that portion of the tapetum which lies in the optical axis of the eye is the part where all the observations contained in this paper have been made.

The horse to be examined is brought into an ordinary stable, and any windows likely to be reflected in the cornea are covered up. The observer stands facing the source of daylight, the eye to be examined being in shadow; standing opposite to the centre of the pupil (and looking at it in such a direction that a line passing through the eye would come out well below the base of the opposite ear), the light is reflected on to the retina at a minimum distance of 4 feet. A brilliant yellow reflex is obtained from the tapetum, by means of which we can readily fix our position relative to the pupil.

No means of restraint are employed, and though for a minute or two the horse works the eye under examination to and fro, thereby alternately altering the reflex, yet it soon comes to a standstill as he gets used to the reflection from the mirror.

The observer, by practice, automatically regulates his position, so as always to be opposite the centre of the longitudinal pupil, and to ensure that during any change he may make in his position he does not come nearer to the eye than the prescribed distance, a 4-foot gauge is lying on the floor at his feet, in the direction of the horse's head.

The reflex is taken in the horizontal and vertical meridians of the eye; it is very seldom that any difficulty is experienced in determining the direction in which the shadow is travelling; the real difficulty is in determining between two opposite shadows given consecutively in the same eye and in the same meridian. I think this latter phenomenon is caused by the horse using its ciliary muscles; with patience the true reflex of the resting eye will be obtained.

Having determined the direction of the shadows in both meridians, a trial lens is now placed in a frame and held in front of the eye under examination. The glass is brought quite close to the cornea, the centre of the lens corresponding to the centre of the cornea; the observer, standing at a minimum distance of 4 feet, throws the light into the eye and determines the reflex through the lens.

As we approach the lens which corrects the ametropia, some difficulty may be experienced in determining the direction taken by the shadow; sometimes it neither passes "with" nor "against" the mirror, but dies away from the circumference, producing an appearance resembling a dissolving view. In human practice this characteristic reflex, I believe, is considered to be due to astigmatism.

No part of the above examination is made under atropine; as previously explained, the pupil as a rule dilates sufficiently for a complete examination of the fundus to be made, and, so far as paralysis of accommodation is concerned, little, if any, is produced even by repeated instillations of this drug.

My results have been calculated according to the rule given by Morton: For hypermetropia deduct 1 D from the weakest convex lens which causes the shadow to move with the mirror; for myopia deduct 1 D from the strongest concave lens with which the shadow continues to move with the mirror.

A table given shows that of the 100 eyes examined—

51 were myopic and astigmatic.
2 „ hypermetropic and astigmatic.
6 „ affected with mixed astigmatism.
39 „ „ „ myopia.
1 with hypermetropia.
1 „ emmetropia.

The varieties of astigmatism which existed were as follows:—

Compound myopic astigmatism ...	43
Simple „ „	8
Compound hypermetropic astigmatism	1
Simple „ „	1
Mixed astigmatism	6

In the eyes affected with myopia and astigmatism, the horizontal meridian was nearly always the meridian of least curvature. Berlin, and Lang and Barrett had also observed the same fact. In my table of the 51 eyes there were only nine exceptions to this rule.

The amount of error which existed in each refraction was as follows:—

		Amount of error.	No. of eyes.
Myopia,	(39 *Eyes*).	0·25 D	6
		0·50 „	20
		1·25 „	5
		1·50 „	4
		2·25 „	2
		2·50 „	1
		3·00 „	1

Only once in 39 eyes was the amount of 3 D reached, whilst the most common amount of error was 0·50 D.

Compound Myopic Astigmatism		0·25 „	21
	(43 *Eyes*)	0·50 „	5
		0·75 „	11
		1·00 „	4
		1·25 „	2

The most common amount of error was 0·25 D and 0·75 D.

Simple Myopic Astigmatism		0·25 D	1
	(8 *Eyes*)	0·50 „	5
		1·25 „	1
		1·50 „	1
Hypermetropia	(1 *Eye*)	0·25 D	1
Compound Hypermetropic Astigmatism	(1 *Eye*)	0·25 D	1
Simple Hypermetropic Astigmatism	(1 *Eye*)	0·25 D	1
Mixed Astigmatism	(6 *Eyes*)	0·50 D	5
		2·25 „	1

The amount of error shown in these different refractions is small, so much so that many eyes might be regarded as emmetropic. In only about 33 per cent. of the myopic eyes did the amount of error exceed 1 D.

The number of astigmatic horses is remarkable, viz., 74 per cent., but we cannot agree with Hirschberg that the amount found is "intense." Of 59 astigmatic eyes only in nine did the error exceed 1 D.

Berlin considered the majority of horses to be hypermetropic; I have only met with one case of very low hypermetropia out of 100 eyes.

Conclusion.

1. The chief visual defect in horses is myopia with or without astigmatism.
2. The amount of error is not great.

THE "PROGRESSIVE PHYSICIAN."

By A MODERATE.

A few days ago I received a circular from a firm of druggists which began as follows:—

> Dear Sir,—In venturing to again approach you with regard to our preparations, which cannot fail to be of interest to the progressive physician, we desire to more particularly emphasise the tonic properties of that ideal mode of exhibiting, etc., etc.

I have nothing to say against the excellent firm in question or their ideal preparations, but the expression "progressive physician" took my fancy and set me thinking. What is a progressive physician? Probably the term was only intended by the clever gentlemen who drafted the circular as a smart way of describing the physician who keeps abreast of modern knowledge; but I venture to think it has another and more appropriate application. There is, in fact, a class of doctors whom it fits exactly, and for whom we have long wanted a name, since "quack" is inapplicable, besides being libellous, and "humbug" uncomfortably rude and slangy. They are the doctors who take up and exploit the latest fads in medicine. Let them in future be called Progressive Physicians. We thank you, Messrs. ———, for teaching us that word, and we will try to make the public understand what it means.

The essence of the business is self-advertisement, and it is effected in various ways. One is to invent a new disease caused by "modern conditions of life." For instance, the well-known brain specialist, Dr. Septimus Wimpole, has discovered that the agitation of mind caused by crossing the streets at certain much-frequented spots in London sets up a peculiar condition of the nervous system which he calls "Mansion House tremor" while that rising surgeon Mr. Clavicle describes a new affection of the muscles developed in unskilful golf-players under the title of "Bunker spasm." Another way is to apply modern science to revealing in a theatrical fashion the awful dangers that beset our daily life—for instance, by estimating the number of microbes that may be scraped up off the floor of a four-wheeler. There is not much harm in these and similar dodges for getting one's name up. Such communications are usually addressed in the first instance to the medical profession, which is quite capable of estimating them at their proper value, though they have a strange knack of finding their way into the lay press. (Who *does* put these things into the papers?) A less refined plan is to write signed articles on some "progressive" medical topic in the monthly periodicals. The subjects chosen for this purpose are modern and general, such as "City Worry" or "Train Fag;" and maybe some innocent people are taken in by the scare.

But the real field of action for the progressive physician is the exploitation of new remedies and methods of treatment, or, more often, of old ones faked up and developed under new names. For instance, he takes mesmerism, furbishes it up and runs it as hypnotism: he does the same with rubbing and calls it massage; baths become balneo-therapeutics and are developed in a hundred fantastic shapes; and so on with a score of other "cures" connected with diet, dress, air, water, and all the common circumstances of life. Some of them derive their attraction from their commonness—anybody can understand them. Others, such as hypnotism and electricity, fascinate through a touch of mystery. All, or nearly all, rest on some truth and possess some value; they are not pure quackery, but have their proper use, and are by no means the exclusive property of the progressive physician. Others employ them too, but in a legitimate way. His peculiarity is to pretend that in his hands, or as applied according to some "system" of which he has the secret, they possess a prodigious efficacy. He throws a theatrical air over what is to his colleagues merely an item in their professional equipment, makes a fad of it, and elevates it—if he can—into a fashionable craze; himself riding to fame and fortune on the back of his own creation. The harm he does is great. For in the first place he is much more dangerous than the downright quack, who deceives none but those who want to be deceived. Any one who confides in a vulgar impostor has only himself to blame: but what layman can guard against the specious wiles of an educated and properly accredited physician who believes, to some extent at least, in his own specific? A far more serious evil, however, than making fools of a few individual patients must be laid to the door of the progressive physician. It is he and his fashionable methods of treatment which furnish the worst of quacks with their most formidable impostures, and with still worse perversions of medical practices. Let us take a case in point, of which something has recently been heard.

Massage has within the last few years been elevated into a fashionable craze as a novel method of treatment and a wonderful cure for half the chronic ills to which flesh is heir. In reality it is as old as the hills and practised by the most primitive savages. One proof may suffice. During Captain Cook's third voyage he visited Tahiti in the year 1777, and while there was much troubled by sciatica. The natives offered to cure him, and twelve women, including the King's mother and three sisters, came off to the ship for that purpose. Captain Cook had a bed spread on the cabin floor and lay down upon it; whereupon the women "began to squeeze him with both hands from head to foot, but more particularly in the part where the pain lodged. After undergoing this discipline for a quarter of an hour he was glad to be released from the women. The operation, however, gave him immediate relief, so that he was encouraged to submit to another rubbing down before he went to bed." Next day he had two more sittings, "after which his pains were entirely removed and the cure was perfected. This operation, which is called *romee*, is universally practised among these islanders, being sometimes performed by the men but more generally by the women." It has been similarly known in the East for centuries. Massage is, in point of fact, an extremely ancient and simple procedure, highly efficacious in a certain limited class of affections of the muscles and nerves. Then the progressive physician took it up, and after his wont soon transformed it out of all recognition. He elaborated the movements, invented a wonderful nomenclature for them, overawed novices by pretending that the treatment requires profound skill and experience for its mastery, that its unskilful use is most dangerous, but that in proper hands—his own or his pupils, to wit—it is a sovereign cure, and so forth. All of which is arrant humbug and not far removed from regular old-fashioned hocuspocus. But it had the desired effect of imposing on the public and of making massage fashionable, so that it came to be applied to all sorts of unsuitable cases. The result of this development in unscrupulous hands we all know, and the less said about it the better; but do not let us forget that we owe it to our respected friend the "Progressive Physician."—*The St. James's Gazette.*

THE CONTAGIOUS DISEASES (ANIMALS) ACT.—At Liverpool the Dublin and Mersey Steamship Co. were fined £10 and costs for neglecting to cleanse and disinfect their ship Blackrock on August 31, after having discharged cattle. It was stated by Inspector Wheatcroft that the defendants had twice previously been fined, and that on the present occasion they were actually putting cargo into the vessel before complying with the Act.

THE INHALATION OF ANÆSTHETICS.

The Medical Times and Hospital Gazette of Sept. 1st contains several communications on this subject, from which we take the following:—

THE RESULTS OF THE HYDERABAD CHLOROFORM COMMISSION.

Referring to a remark made in *The Lancet* of the 4th ult., it has not been denied that if there be too much vapour of chloroform in the air the patient breathes, it may cause sudden death by syncope from the direct action of chloroform on the heart. Anæsthesia may be produced in two ways, either by rapid administration of concentrated vapour with apparent free respiratory movements, or by giving highly diluted vapour in gradually progressive doses, removing the sensibility of these impressions, that is, by a true anæsthetic action.

The records of fatal cases show that the first way of giving chloroform may easily lead to sudden stoppage of the heart's action, by the direct influence of too concentrated vapour of chloroform, and should, on that account, never be employed, and not even be thought of when discussing the action of chloroform for inducing normal anæsthesia, and can only be useful for the express purpose of killing an animal by that agent.

There remains, then, only the question, by which method should chloroform be administered to insure the greatest safety? Dr. Snow has shown how this may best be done by his experiments on small animals with gradually increasing doses. The first experiment was made with air containing half a grain (0·383 per cent.) of chloroform to each one hundred cubic inches of air, and this quantity was increased at each succeeding experiment by one quarter of a grain. The third, fourth and fifth of the experiments show that one grain of chloroform to each hundred cubic inches of air suffices to induce the second degree of narcotism, or that state in which consciousness and voluntary motion are disturbed, but not entirely abolished. From the experiments numbered 9 to 12 inclusive, it is evident that two grains of chloroform to each hundred cubic inches of the inspired air cause a state of very complete insensibility, corresponding with what Snow designated the fourth degree of narcotism. In experiments 6, 7, and 8, in which quantities of chloroform were employed intermediate between one and two grains to each hundred cubic inches of air, a moderate amount of insensibility was induced, corresponding very much with the state of patients during operations under chloroform. The experiments from 13 to 18 show that quantities of chloroform exceeding two grains to one hundred cubic inches of air have a tendency to embarrass and arrest the function of respiration, if the inhalation is continued. In experiments 24 and 25, the animals were first made insensible by vapour of moderate strength, in order to keep them quiet for the application of the stethoscope whilst the stronger vapour was inhaled, but when animals are made to breathe air containing ten per cent. or so of vapour of chloroform from the first, death takes place in the same manner, *i.e.*, by the direct action of the chloroform on the heart. Under these circumstances the creatures die suddenly, after a brief interval of agitation and excitement, without previous insensibility. This is what has happened in some recent accidents from chloroform, whilst in many cases death has happened after a longer or shorter period of insensibility. In many of the fatal cases of inhalation of chloroform the alarming symptoms commenced whilst the patient was still inhaling, but in a considerable number there was no sign of danger until after the inhalation had been left off; and this is a result which may be imitated on animals.

The experiments above referred to prove conclusively that the effects of this narcotic vapour depends entirely on the quantity of air with which it is mixed.

In another letter, after a brief sketch of the introduction of nitrous-oxide and of ether, the writer goes on to say:—"Owing to imperfection in the inhalers employed, and in the methods of using them, the ether often either failed altogether or only made the patient partially insensible; and Mr. Liston and some other surgeons were inclined to discountenance the use of it in consequence of the struggles and cries of patients to whom it had been administered. It soon became apparent, however, that the vapour of ether was capable of inducing a state of perfect quietude, with entire absence of pain. From January 28th, 1847, the ether, properly administered by means of a suitable inhaler, invented by Dr. Snow, produced the desired effect in every operation that was performed in St. George's Hospital, until the time when chloroform was introduced as a substitute for this agent.

Chloroform was first made in 1831 by two chemists, who operated independently of each other; yet it was left to Dr. Simpson, of Edinburgh, to be the first to administer chloroform in an undiluted state, and to recommend it successfully for general use sixteen years after chloroform was first made. He published his pamphlet on the subject in the early part of November, 1847.

Dr. Simpson recommended chloroform to be administered on a handkerchief, but this method was strongly objected to and opposed by Dr. Snow. The objection, says Dr. Snow, to giving chloroform on a handkerchief, especially in surgical operations, where it is necessary to cause insensibility, is that the proportion of vapour and of air, which the patient breathes, cannot be properly regulated, and, if there be too much vapour of chloroform in the air the patient breathes, it may cause sudden death even without previous insensibility, or at any time during during its administration.

Dr. Snow's objection to Simpson's method, together with his lucid exposition of the manner in which he conducted his numerous experiments on small animals, were published in 1858. In spite of all the warnings given by Dr. Snow, chloroform continues to be administered, with few exceptions, by the primitive and uncertain method recommended by Dr. Simpson, with the lamentable results we see week by week published in the medical journals.

This year (1894), that is, forty-seven years after Dr. Simpson first introduced chloroform, members of the British Medical Association and visitors may have seen and examined the improved inhalers for a more precise and systematic method of administering chloroform or ether, exhibited in the museum at Bristol, and their technical use demonstrated. They will have been convinced that the inhalers give the administrator perfect control over the anæsthetic which enables every administrator to give the anæsthetic in the gradually progressive manner as taught by Dr. Snow. Dr. Snow, whose inhaler was by no means perfect, estimated, that from three to five per cent. of chloroform in the air breathed is safe, but it was left to Dr. R. W. Carter, of Weymouth, to prove conclusively by his results obtained with Krohne's regulating inhaler, which he published in *The British Medical Journal* December 16th, 1893, that air containing from one-third part of a minim upwards to two minims of chloroform to each one hundred cubic inches of air the patient breathes, is all-sufficient for the purpose of anæsthesia.

GLANDERS ON A FARM.

At the Samford (Suffolk) Petty Sessions, County Hall, Ipswich, on Tuesday, before Capt. A. H. Morse, (in the chair), and Rev. J. H. Hocking, Mr. John Keeble, farmer, Brantham, was charged with having on the 18th July, at Brantham, three horses suffering from glanders and not giving proper notice of the fact, in contravention of the Glanders or Farcy Act, 1892, and of the Contagious Diseases (Animals) Act, 1878.—Mr. F. J. W. Wood prosecuted on behalf of the police, Mr. E. P. Ridley defended.

Mr. Wood said the Order of 1892 stated that upon a horse being suspected of suffering from glanders or farcy notice should be given to the police. If the Bench were satisfied, after hearing the evidence, that the infection was brought to Mr. Keeble's knowledge, he (Mr. Wood) was entitled to a conviction. Mr. C. E. Fisher, the Deputy Chief Constable, did not wish to press the charge, but an example ought to be made, as it was necessary that the general public should comply with the Orders relating to the disease. Even if the disease were suspected notice should be given. A copy of the Order was posted up in defendant's district and all over the county.

The Deputy Chief Constable (Mr. C. E. Fisher) gave evidence as to not receiving a notice either of disease or of suspected glanders at defendant's farm. From information given him he instructed Mr. A. E. Shorten, veterinary surgeon, Ipswich, to inspect the premises.

Mr. Edward Simpson, jun., assistant to his father, veterinary surgeon, Holbrook, said on Tuesday, May 22nd, he saw Mr. Keeble's colt and told him to keep it isolated. The next day he said he suspected it was a case of glanders. Witness saw the horse in question several times, once with his father, and told defendant he ought to report it.

Mr. Edward Simpson, senior, veterinary surgeon, said he examined a bay gelding belonging to defendant on July 14th. On the 15th he again examined it with Mr. Taylor, Colchester. Witness told defendant on the 16th he had come to the conclusion that it was a suspicious case and ought to be reported. Defendant replied that he would do so. Witness was at the post-mortem examination; the animals were suffering from glanders.—Cross-examined: When he first saw them he did not arrive at any conclusion.

Mr. Ernest A. Shorten, veterinary inspector for the Local Authority of the county, said he received instructions to inspect Mr. Keeble's horses at Brantham on July 17th. He examined a chestnut gelding and a bay mare, both old horses, which were discharging from the nostrils and had swelling of the glands, which were symptoms of glanders. A bay colt on the marshes had sores on it, but glanders did not develope until later on. Another horse was being treated for another ailment, and was not then exhibiting signs of the disease. Witness asked defendant if he should like a post-mortem examination made of the two horses. This he subsequently made and glanders was found. In his opinion the disease was thoroughly established on the farm. He could have detected the disease some weeks before had he seen the animals. In his opinion it would have been open to any individual to see that there was a suspicion of glanders.

J. A. Barber, P.C., Holbrook, said on July 19th he went to Brantham Hall to see some horse, by order of Mr. Fisher. He saw Mr. Cowan, veterinary surgeon, of Colchester, examine the horses, and that gentleman told Mr. Keeble there was a suspicion about them. Mr. Keeble, who was standing near, made no reply.

J. Gardiner, P.C., Stutton, was called to show that he had received no notice of the infection.

Mr. Ridley, in defence, said as soon as Mr. Simpson told his client that the horses were suffering from glanders he sent to Mr. Cowan, of Colchester, to come and see them. That gentleman saw them and ridiculed the idea of the colt being at all affected with the disease; and after taking the opinion of a competent man defendant could only deal with the opinion he gave him. Mr. Cowan said they were not suffering from glanders; in fact he was so satisfied that the colt was perfectly cured before that time that he offered to buy it for £25. It was not a question whether Mr. Cowan was right or wrong, but whether defendant was justified in acting on that opinion. On the 16th July Mr. Cowan was telegraphed for, and he told defendant there was absolutely no possible sign of glanders except the discharge from the nose, which came from gleet and was not a case to report. The post-mortem examination showed by the lungs only that the horses had glanders.

Mr. J. Keeble said his brother, Mr. Simpson, and Mr. Simpson's son saw the horses in May, and Mr. Simpson, senr., said it was not a case to report. In June Mr. Cowan saw one of the horses and said he would cure it in a fortnight. On the 16th of June Mr. Simpson, senr., said he should write to Mr. Shorten that night, leaving the impression that if he (defendant) did not report it he would. On that afternoon Mr. Cowan came and saw the horses, and he acted entirely on his advice. Mr. Cowan was so satisfied there was no glanders on the place that he offered to lend him a horse, valued at 39 guineas, as he was short. The horse came, but witness sent it back as soon as Mr. Shorten arrived. Mr. Cowan advised him to have both horses slaughtered, as they were valueless, and witness arranged with Mr. Binks to have them killed on Wednesday, the 18th July. The colt was isolated on the marshes. Cross-examined: He had horses now that Mr. Shorten suspected of having glanders.

Mr. Peter S. Cowan, veterinary surgeon for the Borough of Colchester and for the Board of Agriculture, bore out defendant's evidence and said he did not tell Barber, P.C., that it was a suspicious case of glanders, but that it was a suspicious discharge. If glanders had been present he should have expected a swelling of the nostril. After the horses were killed he minutely examined the heads of both horses and could not detect the slightest trace of ulceration. The glanders could not have been properly detected unless a post-mortem examination were made. He had no doubt, after examining their lungs, that they were suffering from glanders.

The Bench retired, and on their return the Chairman said they had given the case their most serious attention and from the evidence they considered that Mr. Keeble ought to have given notice. They imposed a fine of £5 and £5 4s. 10d. costs, it being a most serious matter. —*The Suffolk Chronicle.*

Bakewell Local Board and the Swine Fever Order.

On Wednesday, 5th Sept., the above board met under the presidency of Mr. S. Taylor Whitehead.—Mr. J. E. Barker, Q.C., asked what was being done at Bakewell Railway Station in the matter of selling pigs. During the time restrictions were in force they could not sell swine in the market, and he was told pigs were brought to the railway station and sold there. If so it was a violation of the spirit of the Act.—The Surveyor reported that this was done both at Bakewell Station and at Miller's Dale. They were brought to the station in trucks, sold, and driven away.—Mr. Barker remarked that perhaps it was to avoid the market dues. Bakewell was an ancient market, and had certain rights as to a radius of six miles. The Surveyor was instructed to ascertain what actually takes place at the station.—*Sheffield Independent.*

THE TEACHING OF ANATOMY.

From a long letter to the Editors of *The Lancet* signed T. Cooke we extract the following:—

"An academical year has elapsed since I published my pamphlet "A Plea for Practical Work in Anatomy." The pamphlet has been the subject of leading articles in *The Lancet* and other medical journals speaking out strongly in support of the views expressed. It may be well to review the situation before another academical year begins. The medical student of to-day is well behaved, intelligent, and hard-working. He is gentlemanly, and possesses a wide range of information. He follows conversation on the most abstruse subjects; he talks well on almost everything; and writes good papers at examinations. He is a vast improvement, some say, on his less favoured predecessor. In a sense this is so; but only ask him to do a thing, and he is out of it altogether. He is the polished product of the reading and talking tendencies of the day; but he is the very antithesis of the practical apprenticed pupil of former years.

One of my most attentive pupils, an intelligent second year's man, who has now done good practical work, quite innocently remarked to me a short time ago that before he came to me he had never even seen either the spleen or the pancreas. But a few days ago, in my dissecting-room, the internal carotid artery was exposed within the petrous portion of the temporal bone in connection with the dissection of the tympanum. The part happened to be left on the table and became an object of curiosity and speculation. The artery was taken by some for the cavernous sinus, by others for the Gasserian ganglion, by others for the facial nerve, by others for the tensor tympani muscle, and so forth. I am told that the ganglion of Ribes was mentioned. One man only took it for an artery at all. These were the views of some twenty-gentlemen from various parts of the kingdom, all on the point of going up for their Second Conjoint Examination. I was lately watching a final examination in surgery. The candidate was shown the dorsum of a strongly muscular and quite normal foot in the living, and the toes were ordered to be moved. "What is that bluish mass?" he was asked (the skin was thin and translucent) "which alternately heaves and subsides with the movements of the toes?"—"A collection of blood, an aneurysm, an abscess caused by a loose piece of dead bone, &c." The candidate knew nothing of the extensor brevis digitorum muscle. Another candidate was asked to fix a dressing on the perineum—a double spica tying the two thighs together was the ingenious device.

Dr. William Bruce, a member of the General Medical Council, the direct representative for Scotland, writes: "I unhesitatingly affirm that men are now being turned out as qualified who are not safe to be trusted with the lives of their patients. Men pass and pose as doctors who are not, in the true sense, fit to appear on the register of duly qualified medical practitioners, and who, as such, are nothing more nor less than frauds upon the public."

Too much is required of the poor student by the task-master of modern specialism. While straining after every gnat of fancied precision we forsake the most fundamental principles of true learning.

It was an axiom in my student days that it was practically settled at the end of the first winter session what the nature of a man's practice would be in after-life. This meant that a man's professional career depends in the main on his early work in practical anatomy. I submit that this is as true now as it was then. Practical anatomy is a man's start in professional life. My unvarying experience—and my range of observation is a wide one—is that the great majority of students will from the very first take an interest—indeed, an intense interest—in anatomy as taught on the dead body, and as giving tangible response to their questioning cogitations as to "how the thing works." The young man fresh from school, taught, perhaps, in the noble words of the Psalmist, "how wonderfully and fearfully we are made," invariably approaches practical anatomy with a wholesome and spirited curiosity, which, indeed, grows year by year instead of waning. The mainspring of all success, whether present or future—the interest one takes in one's work—is here, to a certainty, in action. But the whole outlook—the outlook, be it borne in mind, which embraces the entire professional career—darkens the very moment the early teaching goes to any extent or in any way beyond what the student can see with his own eyes and handle with his own hands—the moment, that is, plates and diagrams are introduced. Illustrations of what one can well see for oneself tempt one to idleness; illustrations of what one cannot well see tempt one to what is even worse—to trusting to what is called "understanding anatomy." I must here repeat my apothegm, "In anatomy, seeing and doing are understanding, and nothing else is."

The Berlin Slaughter-house.

It may be said that the Berlin slaughter-house is managed on a scientific basis, and that very great care is taken to protect the Berlin population from the danger of eating diseased meat. There are twenty full qualified veterinary surgeons always on duty at the slaughter-house, as well as a large staff of inspectors in the various markets to watch the retail trade. Close to the public slaughter-house there are oil clarifying and albumen factories, so that all the industries, excepting leather dressing, that arise from the slaughtering of animals are carried out on the spot. Everything from the slaughter-house drains into the Berlin sewers, and, it is calculated, reaches the open fields in less than two hours.

Meat Inspection in Christiania.

It is an interesting fact, and serves to mark off very clearly the difference between English and Continental sanitation, that one of the questions that has most recently been engaging the attention of the city and has led to practical steps being taken is that of the inspection of meat by specially trained veterinary surgeons. Although ahead of Great Britain in this respect, Norway has lagged a little behind France, Belgium, Germany, and Denmark, but is evidently determined to make up her lost ground. There is no abattoir at present; this will come, doubtless, before long. There are about thirty private slaughterhouses, where are to be found, as is pointed out in a report of the city engineer, the defects so commonly associated with the same in London and all over Great Britain—bad situation, defective ventilation, insufficient accommodation for the animals, &c. Since Jan. 1st, 1894, however, no meat that is slaughtered in Christiania can be sold unless it has first undergone an expert examination by a veterinary surgeon. The station that has been built is admirably adapted for its purpose. It is a one-storeyed building, with four rooms opening one into another; each room has a tiled floor sloping to a central drain, and the walls are of glazed earthenware tiles. In each room are two large marble slabs on rollers, which can be run outside the doors when any meat arrives. The following figures will serve to illustrate the activity that has prevailed in this department. Between Jan. 1st and April 1st there have been examined 9528 oxen, 3077 pigs, 2355 sheep, 11,410 calves,

and 285 horses. Of these, there have been seized 34 oxen, 18 pigs, 3 sheep, 112 calves, and 8 horses; altogether, more than eight tons weight of meat, most of which would have otherwise found its way to the market and been sold. As in Paris, Berlin, and elsewhere, localised tubercle is not regarded as a sufficient cause for seizure; the meat is, however, branded with a special stamp, marking it as of second-class quality.

Personal.

PRESENTATION.

Mr. FRED. H. SHORE, some time pupil with Mr. Henry Thompson, M.R.C.V.S., who is leaving Aspatria for his final course at college, was presented with a beautiful case of instruments on Thursday night, at Mr. Joseph Thompson's, Braudraw Hotel. Mr. H. Thompson, in making the presentation, referred to the esteem in which Mr. Shore was held, and also to the many acquaintances he had made. He remarked that to be a good surgeon it is necessary to be a good anatomist, and he hoped that when the time came for Mr. Shore to use the instruments for the relief of some dumb animal that he would remember the strictures Portia put on the Jew in "The Merchant of Venice," and he would neither spill one drop of blood nor remove more normal structures than was necessary for the operation.—Mr. Shore, in replying, said that in whatever part of the world his lines were cast, he would always remember he had made friends in Aspatria. He had heard before he came to the town that Aspatria people were queer folk. Well perhaps they are. Coming up the town one night, he heard some young lads make a remark about the hat he had on his head. They cried out, "What a queer hat that chap has on his head." Exhibiting the hat he said, Well, perhaps it is a queer hat, but it is a good one," and if the Aspatria people were queer, like his hat, they were also uncommonly good. He thanked them all most sincerely. An enjoyable evening was spent in song and recitation.

ACCIDENT.

Mr. DICKIE, of Ayr, was engaged examining a horse, on Tuesday 11th, when the animal kicked out viciously, striking Mr. Dickie in the face and inflicting serious if not fatal injuries. Mr. Dickie remains in an unconscious state.

OBITUARY.

FLORANCE JENNER INSALL, Coleshill, Warwickshire,
Graduated at Glasgow, April, 1877.

Early on Tuesday morning, 4th inst., Mr. F. J. Insall was found dead in his bedroom. His assistant, Mr. W. Farran, who slept with him, was awakened by a gurgling sound, and saw Mr. Insall on the floor with his throat cut and a blood-stained razor beside him. The deceased had been in Coleshill for the last fourteen years, and had a very extensive practice amongst the landed gentry of the district. For a few months he had been much depressed in spirits, and had been greatly affected by an illness which he had had in May and June. He leaves a widow and one child.

JOHN BLUNSOM, Cirencester, Gloucester,
Graduated, London, May, 1853.

The death of Mr. John Blunsom took place on Saturday, about two o'clock, almost suddenly, after a severe and protracted illness. He was born at Daventry, in Northamptonshire, in 1833, the son of a veterinary surgeon, practising in that town, and was brought up to his father's profession. Obtaining his diploma in May, 1853, in the following year, Mr. Blunsom came to Cirencester to take charge of the business of Mrs. Tombs, in Black Jack Street, who was continuing the practice of her deceased husband. Soon afterwards Mr. Blunsom purchased the business and from that time carried it on with great success until about three years ago, when he underwent a serious operation, and he was compelled to relinquish active work. About a week before his death Mr. Blunsom's illness assumed a more serious character, causing great anxiety to his family and friends, and for two days before the end he suffered much pain. The deceased gentleman had a large practice, extending over a wide district, and his professional advice was much valued. He was wonderfully popular, and he was greatly admired for his energetic and conscientious attention to his duties. Mr. Blunsom leaves a widow, several daughters, and one son, the latter of whom acquired the business some months since.

ARMY VETERINARY DEPARTMENT.

THE ARMY VETERINARY SCHOOL.
THE ARMY VACCINE INSTITUTE.

Both the Army Veterinary School and the Army Vaccine Institution are doing excellent work. At the former the constitution of the officer's classes held during the year was as follows: Cavalry, 30; Royal Artillery, 6; Royal Engineers, 2; Army Service Corps, 12; Infantry and Indian Army, 14; Canadian Dragoons, 1; Warrant Officers, New South Wales Cavalry, 1; total, 66. Of this number 62 obtained certificates; 111 men attended the farriers' classes, 104 obtaining certificates.

The number of persons for which lymph was cultivated at the Army Vaccine Institute during the year was 42,128, and with the balance remaining from the previous amounts to 45,857 persons. Of this lymph for the vaccination of 43,064 persons was issued, leaving a balance in hand of 2,793. Of the 43,064 issues of lymph made, results have been received for 41,572 vaccinations. The results obtained are excellent. Taking home stations we find that the percentage of successful primary vaccinations was 96 per cent., and of re-vaccinations 89·55 per cent. The number of calves vaccinated during the year was 16, giving an average of 2,633 persons to each calf, which is a remarkable average. The average daily issue was sufficient for 118·30 persons. The total working expenses for the year, including cost of calves, instruments, &c., was only £72 10s. 5d. Since the opening of the institute on January 21, 1889, to March 31, 1893, lymph has been prepared for 206,597 persons. For these excellent results the greatest credit is due to Veterinary-Major Longhurst and Veterinary-Lieutenant Butler, the present professors of the Army Veterinary School, who also manage the Vaccine Institute. The Veterinary is a very popular department of the Army. It is brought, of course, more directly in touch with the military aspect of the Service than other departments and its officers work so devotedly, as a rule, to promote the efficiency of the arm to which they are attached that they have succeeded in earning general respect.—*Army and Navy Gazette.*

Veterinary-Lieut.-Col. G. A. A. Oliver has arrived at Aldershot, and has taken over the duties of district veterinary officer. Veterinary-Captain W. B. Spooner has joined at Sheffield, and taken over veterinary charge of that station, vice Veterinary-Lieutenant-Colonel G. A. A. Oliver.—*Broad Arrow.*

CORRESPONDENCE

RE BULLINGDON.

SIR,

I beg to tender my acknowledgements to your correspondent "Practitioner" who has not only put the best construction on the short paragraph which appeared in your and other journals regarding my report on the death of Bullingdon, but he conveys to your readers a clear and accurate explanation of the case. My time is so much occupied, and I am so little inclined to enter upon a newspaper correspondence that I did not intend to make any reply to the letter of your correspondent, E. R. Edwards in your issue of August 25th. "Practitioner" is correct in his surmise as to the reason of the brevity of the published report; but I may take this opportunity of stating that his explanation of the relation between the cause and effect is as reasonable as it is clear and simple, and that it is in substantial agreement with my official report to the owner of Bullingdon.

D. CHARNOCK, M.R.C.V.S., Aintree.

"VET."

SIR,

The important subject discussed in your pages last week by Mr. Fraser will not, I trust, be allowed to drop.

Rightly or wrongly I have for years regarded the application of the term 'vet' as an insult, though not I believe an intentional one. No doubt there are many men whose contempt of our profession and of its members is so great that they are glad of the opportunity of using a word in reference to our calling which can never command respect. There are others who I am sure use the term unconscious of its extreme offensiveness, and they do so as the result of the habit of mimicry so characteristic of the race.

We as a profession are not to blame for having such a word as veterinary coined, it is doubtless long and difficult to pronounce without leaving out a syllable, but nevertheless we cannot afford to sacrifice our dignity by allowing this offensive abbreviation to pass current without raising an objection.

Mr. Fraser very properly argues that the other branches of medicine do not receive an abbreviation, and that we alone are singled out for what he terms unjust treatment. It is not only unjust but vulgar. We do not read of physicians being spoken of as "phys" and for the reason that their profession commands respect while ours does not. Is it not a painful fact that probably the bulk of our clients leave the groom, coachman or foreman to deal with us, so completely are we beneath their notice; and even worse than that, may we not be 'discharged' by any of the above worthies if it suits their whim and fancy without reference to their master? Deeply rooted prejudice is difficult to overcome, but we must make a start. Our College should address a circular note to all agricuitural and sporting papers, and point out that we regard the term 'vet' as disrespectful and undignified when referring to either a professional body or to an individual, and that we look with confidence to their support to blot this abbreviation out of the sportsman's dictionary.

But at the same time we must endeavour to live up to this by abolishing the word amongst ourselves; none of us could take exception to the use of the single word 'veterinary' without the surgeon, in fact the word surgeon is superfluous. If we can get surgeon so much the better, but in the first instance we must have the word veterinary in full and accept nothing less.

I am sure that Mr. Fraser reflects the views of the bulk of the profession in his energetic note of last week, and I trust the matter will not be allowed to drop until some definite line of action is adopted. Personal efforts are useful, but their effect is local; combination is wanted, and for that we look to our Council acting in conjunction with and supported by the profession.

X.

THE DIAGNOSIS OF SWINE FEVER.

SIR,

As a feeder and breeder of pigs on a moderate scale, I have noticed the difficulty that exists in diagnosing between contagious swine fever and the diseases resembling it which are caused by errors in diet. The pig, although an omnivorous animal, is very susceptible to gastro-enteritis caused by feeding excessively on a meat diet, while feeding on ground wheat will cause irritation of the bowels, with a typical swine fever rash on the skin. Hence nothing is more important in cases of suspected swine fever than to first obtain full account of the diet on which the diseased animals are being fed. I do say, and say it assuredly, that it is very difficult to distinguish *post-mortem* between the ulceration of the bowels in contagious swine fever from that which I have produced in pigs by feeding largely on greaves (the waste product of the tallow chandler) which substance, I am told, frequently contains arsenic as a preservator; this may seem a peculiar diet, but the mixture of refuse from the house combined with the washings of milk tins, which sometimes gets acid before given them, one would imagine to be quite as injurious.

What then is to determine the disease? The history, diet and surroundings. If we are to take pneumo dermo enteritis and call every disease of pigs which shows these symptoms swine fever, then we must call for the slaughter of every pig in England before we shall rid the country of the disease.

Turning to the housing of pigs; a great many of our piggeries sadly need reformation. While pigs are kept in such filthy places as a great many feeders keep them in, we shall never rid the country of a disease which shows typical symptoms of contagious swine fever. I believe with the medical man in the treatment of typhoid, the sanitary arrangements must first be attended to. Although some may say no amount of filth will cause contagious swine fever, I am sure that a disease of pigs resembling contagious swine fever does arise thro' error of diet and unsanitary surroundings, and that it requires the aid of the microscope to distinguish between the two conditions.

It is well not to relax the existing regulations, although I fail to see how the disease will be eradicated by the existing methods of the Board of Agriculture.

G. UPTON.

Deddington, Oxford.

COMMUNICATIONS, BOOKS, AND PAPERS RECEIVED:—Messrs H. D. Chorlton, W. H. Watkins (with enclosure), G. Upton, G. H. Williams, D. Charnock, E. R. Edwards, W. Jowett (with enclosure). *Birmingham and Aston Chronicle, 18th Nov. 1893, and 8th Sept. 1894, Kircudbrightshire Advertiser, The Insurance Monitor, West Cumberland Times.*

Original articles and reports should be written on one side only of the paper, and authenticated by the names and addresses of the writers, not necessarily for publication.

We shall be obliged by early intelligence of all matters worth bringing under the notice of the profession, and thankful to any friends who may send us cuttings from local papers, containing facts of interest.

Communications for the Editor to be addressed 20 Fulham Road, S.W.